

ABSTRACT OF THE DISCLOSURE

A semiconductor device comprises: a first semiconductor layer of a first conductivity type; a
5 second semiconductor layer of a second conductivity type; a trench; a thick gate insulating film; a thin gate insulating film; a gate electrode; and a semiconductor region of a second conductivity type. The second semiconductor layer is provided on the first
10 semiconductor layer. The trench penetrates the second semiconductor layer and intrudes into the first semiconductor layer. The thick gate insulating film is provided on a inner wall of the trench below an upper surface of the first semiconductor layer. The thin gate
15 insulating film is provided on the inner wall of the trench at a part upper than the thick gate insulating film. The gate electrode fills the trench. The semiconductor region of a second conductivity type is selectively formed to adjoin the trench and to project
20 from a bottom surface of the second semiconductor layer into the first semiconductor layer.